

Newborns and nitrate.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. None of the water supplied by the Columbus water plants exceeded the MCL in 2002. Local television, radio and print media will be notified within 24 hours if the level of nitrate rises above 10 ppm. The media will similarly be notified once the level decreases. If you are caring for an infant, you should ask advice from your health care provider.

Lead in the home.

Some older homes may have lead water pipes. Lead pipes are usually a soft dull, dark gray colored metal and can be easily gouged with a sharp object. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing.

If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Additionally, flush your tap water for 30 seconds to 2 minutes before using it if the water hasn't run for several hours. Additional information is available from the Safe Drinking Water Hotline: (1-800-426-4791). A booklet about lead in drinking water is available from the Columbus Division of Water. Call 614-645-6186 for your free copy.

Total Organic Carbon.

The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest running annual average ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements. The value reported under "Range" for TOC is the lowest monthly ratio to the highest monthly ratio.

Tell us what you think.

We're interested in your questions and concerns about your water. The Sewer and Water Advisory Board meetings are open to the public. Call 614-645-6186 for a schedule of meeting times and dates.

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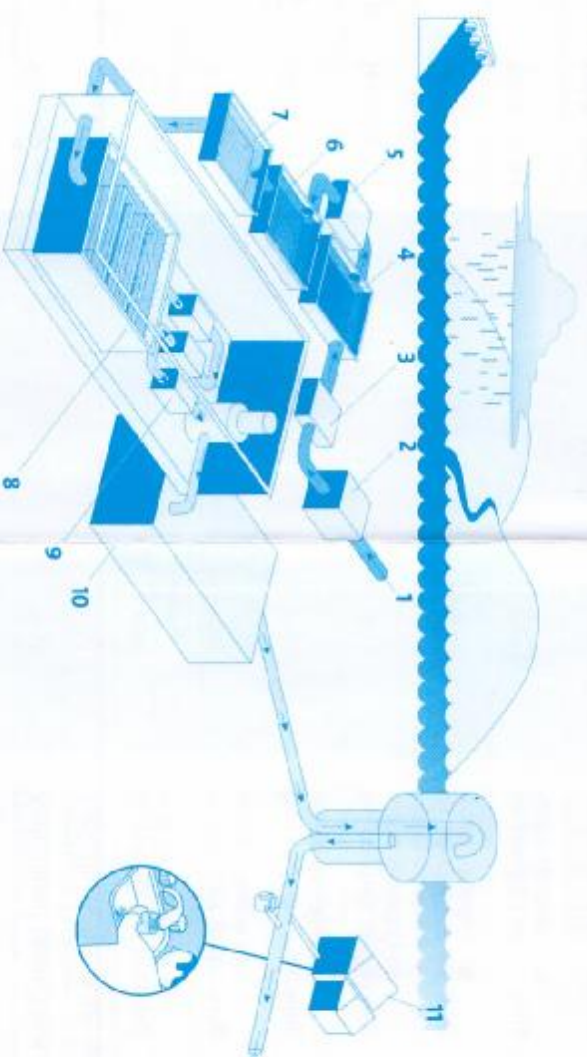
QUALITY ONTAP



BECKY STINCHCOMB
MAYOR

TERRY EMERY
SERVICE DIRECTOR

The Water Treatment Process



We treat water as a precious resource.

Water flows to the treatment plant (1) from the reservoir or stream through rotating screens (2) to remove large debris. It is then pumped into the plant where alum is added (3) to cause coagulation. After rapid mixing, the water remains in the settling basin (4) while sedimentation of floc occurs (2-4 hours). The water treatment residuals (settled floc) is pumped from the bottom of the pools and stored in holding lagoons to dry.

The softening process (5) involves the addition of sodium carbonate (soda ash) or caustic soda and hydrated lime to remove calcium and magnesium ions that are responsible for water hardness. This process takes an additional 2-4 hours. For each pound of chemical used in the treatment process, two pounds are removed.

How to read this report.

The goal of the Division of Water is to ensure that any contaminants in your drinking water are restricted below a level at which there is no known health risk. This report shows the types and amounts of key elements in your water supply, their likely sources and the maximum contaminant level (MCL) that the EPA considers safe.

What's not in your water.

Reports on TV and in the press often raise concerns about the health risks associated with the presence of certain minerals, chemicals or other contaminants in your food or water.

The Columbus Division of Water performs thousands of tests each year to ensure drinking water quality. Many substances, for which the Division tests, never appear in this report because they are not found in the drinking water. For example, there are 51 volatile organic chemicals as well as arsenic, MTBE, and ammonia (just to name a few) which are NOT found in your drinking water.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

The State of Ohio licenses and certifies the operators charged with running and maintaining each of the three water treatment plants. In order to stay current in the ever-changing technical field of water purification, these operators spend many hours of continuing education in the classroom every year.

These operators, the Water Quality Assurance Laboratory staff, and all of the Division of Water employees are dedicated to providing WATER, a life-sustaining resource, for the well-being and economic vitality of the community. This is our mission.

This is important for people with special health needs.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection.

These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). Columbus water is regularly tested for organisms that could be harmful to people - including *Cryptosporidium* (*Crypto*).

While it is sometimes found in Ohio rivers and streams, *Cryptosporidium* has NEVER been found in our drinking water.

Distribution Map

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Each home, school and business in the greater Columbus area receives water from one of three Division of Water plants.



Your Water Comes From

Hap Creamean Water Plant serves OSU and northern residents. The water source is the Hoover Reservoir.

PRIMARY DRINKING WATER STANDARDS

| Substances we detected | When we checked | What's allowed? (MCL) | What's the goal? (MCLG) | HAP Creamean Water Plant Level found | Range of detection | Are we within Compliance? | Where did it come from? |
|-------------------------------|-----------------|-----------------------|-------------------------|--------------------------------------|--------------------|---------------------------|---|
| Fluoride (ppm) | 2002 | 4 | 4 | 1.14 | 0.88-1.14 | Yes! | Water additive - protects teeth |
| Nitrate (ppm) | 2002 | 10 | 10 | 2.00 | <0.50-2.00 | Yes! | Agricultural fertilizer runoff |
| Simazine (ppb) | 2002 | 4 | 4 | 0.35 | 0.13-0.46 | Yes! | Agricultural herbicide runoff |
| Atrazine (ppb) | 2002 | 3 | 3 | 0.82 | 0.18-0.93 | Yes! | Agricultural herbicide runoff |
| Metolachlor (ppb) | 2002 | No set level | No goal set | N/A | <0.20-0.37 | Yes! | Agricultural herbicide runoff |
| Metribuzin (ppb) | 2002 | No set level | No goal set | N/A | No detect | Yes! | Agricultural herbicide runoff |
| Chloroform (ppb) | 2002 | No set level | 0 | 24.0 | N/A | Yes! | By-product of drinking water disinfectant |
| Bromodichloromethane (ppb) | 2002 | No set level | 0 | 7.97 | N/A | Yes! | By-product of drinking water disinfectant |
| Dibromochloromethane (ppb) | 2002 | No set level | 60 | 1.53 | N/A | Yes! | By-product of drinking water disinfectant |
| Bromoform (ppb) | 2002 | No set level | 0 | <0.5 | N/A | Yes! | By-product of drinking water disinfectant |
| Total haloacetonitriles (ppb) | 1998 | No set level | No goal set | N/A | 10.6-18.4 | Yes! | By-product of drinking water disinfectant |
| Total halo ketones (ppb) | 1998 | No set level | No goal set | N/A | 4.4-6.9 | Yes! | By-product of drinking water disinfectant |
| Chloral hydrate (ppb) | 1998 | No set level | No goal set | N/A | 7.0-16.1 | Yes! | By-product of drinking water disinfectant |
| Total trihalomethanes (ppb) | 2002 | 90 | No goal set | 50 | 26.7-77.2 | Yes! | By-product of drinking water disinfectant |

| | | | | | | | |
|-------------------------------|------|-----------------------------------|-------------|---------------------------|-----------|------|---|
| Total trihalomethanes (ppb) | 2002 | 80 | No goal set | 50 | 36.7-77.3 | Yes! | By-product of drinking water disinfectant |
| Total haloacetic acids (ppb) | 2002 | 60 | No goal set | 40 | 28.9-55.2 | Yes! | By-product of drinking water disinfectant |
| Total Alpha (pCi/L) | 2002 | 15 | 0 | <3 | N/A | Yes! | Erosion of natural deposits |
| Total Beta (pCi/L) | 2002 | 50 | 0 | 4.3 | N/A | Yes! | Decay of natural and man made deposits |
| Total Organic Carbon | 2002 | TT (removal ratio >1) | No goal set | 1.41 | 1.27-1.63 | Yes! | Naturally present in environment |
| Total Coliform Bacteria (P/A) | 2002 | Present in <5% of monthly samples | 0% | 0% | 0-0% | Yes! | Bacteria present in environment |
| Turbidity (NTU) | 2002 | TT ¹ | No goal set | 0.16 100% ² | 0.06-0.16 | Yes! | Soil Runoff |

¹The EPA has two requirements: 1) That the maximum level found must be less than 1, and 2) That the level must be under 0.3 NTUs 95% of the time. ²Percent meeting the standards.

OTHER WATER QUALITY PARAMETERS OF INTEREST

| | | | | | | | |
|----------------|------|--------------|-------------|------|-----------|------|---------------------------|
| pH (units) | 2002 | No set level | No goal set | 7.7 | 7.6-7.8 | Yes! | Treatment process |
| Chlorine (ppm) | 2002 | No set level | No goal set | 1.7 | 1.7-1.8 | Yes! | Disinfectant |
| Hardness | 2002 | No set level | No goal set | 113 | 99-127 | Yes! | Naturally occurring |
| Sodium (ppm) | 2002 | No set level | No goal set | 13.4 | 10.8-18.0 | Yes! | Natural/Treatment process |

PRIMARY DRINKING WATER STANDARDS

No lead or copper testing required for 2002. Scheduled for 2003 testing.

Definitions of some terms contained within this report:

How much of any element is allowed in our water?

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

The "<" symbol means "less than". For example, a result of < 5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

The ">" symbol means "greater than".

How is this contamination measured?

Parts per million (ppm) or Milligrams per liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in about 11.5 days.

Parts per billion (ppb) or Micrograms per liter (ug/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in about 31.7 years.

pCi/L: Picocuries per liter (a measure of radiation).

NTU: Nephelometric Turbidity Unit.

When and how are contaminants treated?

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. For turbidity the level must be under 0.5 NTU 95% of the time.

N/A: Not Applicable.